

CLAIMS

We claim:

1. An interactive learning system comprising:

- a. a book having at least one selectable object with a tactile feature;
- b. electronic memory having stored therein data associated with the tactile feature;
- c. system electronics comprising:
 - i. a selection sensor configured to detect the selection of the tactile feature;
 - ii. an audio signal generator; and
 - iii. a processor operatively coupled to the electronic memory, the sensor and the audio signal generator,

wherein selection of the tactile feature causes the audio signal generator to produce an audible signal based on the data associated with the tactile feature.

2. The interactive learning system according to claim 1, wherein the book has a first page overlying a second page having the at least one selectable object, the first page having a void in register with the tactile feature.

3. The interactive learning system according to claim 2, wherein the first page and the second page are connected by a binding, and the first page is movable from a first position overlying the second page to a second position in which the first page and the second page form a two-page spread.

4. The interactive learning system according to claim 4, wherein the two-page spread has an identification code and the system electronics further comprises a identification code detector configured to send to the processor a signal representing the identification code.

5. The interactive learning system according to claim 4, wherein the identification code is an optical code, and the identification code detector is an optical sensor configured to irradiate the optical code and send to the processor a signal representing the optical code.

6. The interactive learning system according to claim 1, wherein the book has a two-page spread having the at least one selectable object, the system electronics is housed in a base unit having a book well and further comprises a two-page-spread identification sensor configured to communicate an identity of the two-page spread to the processor, and the selection sensor is a position sensor configured to communicate to the processor the location of the tactile feature on the two-page spread when the book is in the book well.

7. An interactive learning system comprising:

- a. a book having a tactile page and a plurality of overlying pages overlying the tactile page, the tactile page having a selectable tactile-page object with a tactile feature, each overlying page of the plurality of overlying pages having an selectable overlying-page object with a void in register with the tactile feature;
- b. a binding connecting the tactile page and the plurality of overlying pages;
- c. a base unit having a book retainer configured to releasably retain the binding;
- d. electronic memory having stored therein data associated with the tactile feature, the selectable tactile-page object, and each selectable overlying-page object;
- e. system electronics in the base unit, the system electronics comprising:
 - i. a sensor assembly configured to sense an identity of the tactile page and each overlying page and to detect the selection of the tactile feature;
 - ii. an audio signal generator; and
 - iii. a processor operatively coupled to the electronic memory, the sensor assembly and the audio signal generator,

wherein selection of the tactile feature when the tactile page is viewable causes the audio signal generator to produce an audible signal based on the data associated with the tactile feature and the selectable tactile-page object, and
wherein selection of the tactile feature when one overlying page of the plurality of overlying pages is viewable causes the audio signal generator to produce an audible signal based on the data associated with the tactile feature and the selectable overlying-page object.

8. An interactive learning system comprising:

- a. a book having a first page overlying a second page with a selectable object having a tactile feature, the first page having a void in register with the tactile feature;
- b. a binding connecting the first page to the second page;
- c. electronic memory having stored therein data associated with the tactile feature;
- d. a base unit having a book retainer configured to releasably retain the binding;
- e. system electronics in the base unit, the system electronics comprising:
 - i. a selection sensor configured to detect the selection of the tactile feature;
 - ii. an audio signal generator; and
 - iii. a processor operatively coupled to the electronic memory, the selection sensor and the audio signal generator,

wherein selection of the tactile feature causes the audio signal generator to produce an audible signal based on the data associated with the tactile feature.

- 9. The interactive learning system according to claim 8, wherein the binding comprises an elongated binding base having a plurality of rings engaging the first and second pages, the elongated base having a tab at one end and first and second outwardly facing side surfaces with a slot, and the book retainer comprises a binding receiving slot having a detent at one end and opposed first and second side walls, the detent configured for receiving the tab, each side wall having a tang configured for a snap-fit insertion in the corresponding slot in the first and second outwardly facing side surfaces of the elongated base.
- 10. The interactive learning system according to claim 9, wherein the plurality of rings have a generally D-shape.
- 11. An interactive learning system comprising:
 - a. a book having at least one selectable object with a tactile feature;
 - b. a base unit having a book well with a book retainer configured to releasably retain the book, the book well having an upwardly facing surface with a plurality of selectable book-well graphics;
 - c. electronic memory having stored therein data associated with the tactile feature and the plurality of selectable book-well graphics;

d. system electronics in the base unit, the system electronics comprising:

- i. a selection sensor configured to detect the selection of the at least one selectable object when the book is releasably retained by the book retainer and to detect selection of one book-well graphic of the plurality of selectable book-well graphics when the book is not in the book well;
- ii. an audio signal generator; and
- iii. a processor operatively coupled to the electronic memory, the selection sensor and the audio signal generator,

wherein selection of the tactile feature causes the audio signal generator to produce an audible signal based on the data associated with the tactile feature, and wherein selection of the one book-well graphic causes the audio signal generator to produce an audible signal based on the data associated with the selected book-well graphic.

12. The interactive learning system according to claim 11, wherein the plurality of selectable book-well graphics include keys simulating a musical keyboard.